Cumulative Editorial Index

Including January 1980 through December 1980. Number preceding hyphen is month of issue; those following are page numbers. Asterisks indicate items appearing in departments. PRODUCTION ENGINEERING is indexed in Applied Science & Technology and the Engineering Index, available in libraries generally. Microfilm copies are available from University Microfilms, 300 N. Zeeb Rd., Ann Arbor, Mich. 48106. Reprints of early issues are available from Johnson Reprint Corp., 111 Fifth Ave., New York, N.Y. 10003.

A

Adhesives,
growth in hot melt use, 10-16*
hold down production costs, 6-89
use in bearing installations, 7-45
Apple Jr., J.M., Here's How to Get the Most Out of Shows and Seminars, 12-20
Assembly,
automatic assembly machines, 5-28
continuous motion assembly systems, 3-34
programmable assembly, 5-33
PCs role in automatic assembly, 3-32
technology update, 9-67
Automotive,
K-cars, 10-33
material trends, 10-40
1981 models, production of, 10-30
Axelrod, N.N., Gaging With Light, 3-58
Barton, J.E., Try Simulations for Sizing Up Systems—Before It's Too Late, 12-42
Battersby, M.E., Tax Write-offs Mandated Changes?, 6-8

B

Bearings,
basic retaining systems for, 7-46
faster installation of, 7-44
retention problem solutions, 7-50
roller skew control, 4-73
tapered roller bearings, advances, 7-46
Betz, G. M., Control of Toxic Substances, 8-20
Boulden, L.L.,
1981 Cars—The Empire Strikes Back, 10-30
Production Engineering Perspective: Fluid Actuators, 2-36
Salary Survey Hints at Your 1980 Salary Adjustment, 4-137
That Citation from Oklahoma City, 1-150
Brakes, electronic dc injection systems, 5-38
Brazing, reduced silver fillers, 11-55

C

Casting,
automated, investment, 7-33
computer-controlled, of turbine blades, 7-31
Cattell, G. R., What To Do When Warranty Costs Zoom, 7-38
Chamberlain, R.G., The Shifting Balance Between Centralized and Distributed Systems, 11-58
Clad metals, reduce need for precious metals, 11-52
Communications,
a tool for avoiding strikes, 2-99
infrared data transmission, 6-29*
synthetic speech, 6-29*
Computers,
at Sara Lee, production and warehousing, 1-38
computer-aided manufacturing, CAM, 9-86
CNC chipcutting machines, 9-42
control casting of turbine blades, 7-31
control production lines, facilitated by ac servos, 6-35*
data base management systems, 3-50
growing role in manufacturing, 7-72, 9-82
software applications programs, 9-87
speech technology, 6-29*
Controls,
clutch-brake cycling, 4-48
distributed processing, 11-58
electric motion-control devices, 4-46
fluid, 4-78
hydraulic payoff jogging system, 4-80
proximity switches, 4-49
sequence-type, plugboard programming of, 9-92
Conveyors,
basics of, a review, 3-42
trolley conveyor surge, control of, 12-66
Coolant, purification systems, 10-63
Cutting tools,
inserts, coated, 9-75
inserts, new geometries for, 9-77

D

Dale, P.C., The New Digital Scopes, 7-54
Deshpande, S.L., Today's Batteries Boost Handling Uptime, 12-50
Dhavale, D.G., Weigh the Averages to Lighten Downtime, 10-46
Digital scopes, speed production testing, 7-54
Drives,
drive flexibility, 4-72
electric motor drive regulator system, 4-63
press feeder system, 4-63
single-board computer ac drive, 4-64
strip straightener drive, 4-63
V-belt maintenance, 4-70

E

Education,
engineering enrollments by curriculum, 3-36
of new crop of production engineers, 3-34
schools offering degrees in manufacturing, 3-35
Electron beam,
NC drilling machines, 7-35
welding, 7-35
Elengo, J.J., Ten Common Answers to Load Cell Questions, 3-66
Energy savings,
comparison of finishing methods, 8-40
via higher efficiency motors and pumps, 4-65, 11-42
via solvent recovery processes, 5-15*
Enterline, L., Press Feeder Drive Optimizes Production, 4-62

F

Fastening,
electronic tightening systems, 7/16*
fasteners for plastics, 10-54
Fiber optics, teamed with photoelectric devices, 5-54
Finishing,
electrostatic coatings, 8-42
energy savings potential of various methods, 8-40
induction curing, 8-43
radiation curing, 8-39
Fluid actuators,
basics, a review of, 2-37
component trends, 2-40
hydraulic and pneumatic systems, 2-36
improved filtration, 2-39
nonstandard fluids for, 2-39
specialized cylinders, 2-41
Forbis, R.L., Use Fiber Optics to Boost Photoelectric Capabilities, 5-54
Forming, modern presses for, 9-58

G

Government,
should protect new processes, 3-8*
regulations for hazardous waste, under RCRA, 11-66
regulations for toxic substances, under TSCA, 8-20
regulatory reform, 7-8*, 8-20
Grinding, more productive machines, for, 9-50
Gue, F.S., Is Work In ProcessDoing You In?, 2-44
Gunder, W., Improve Production Planning with Phantom Assemblies, 5-46

H

Hazardous waste,
cradle-to-grave control of, 8-29
manifest system for tracking wastes, 11-69
Resource Conservation and Recovery Act, RCRA, 11-66
Heginbotham, W.B., How They're Developing Tomorrow's Production Machines In England, 11-24
Hegland, D. E.,
Finishing with Fewer BTUs, 8-38
Learjet—Climbing Higher, 1-44
Maching the Unmachinable, 2-26
Production Engineering Perspective: Automatic Assembly, 5-28
Tomorrow's Technology Builds Jet Engines Today, 7-30
Heroux, T.I., Trolley Conveyor Surge: Get Those Jerks Out of There, 12-66
High-strength steel, in 1981 cars, 10-44
Holdridge, G.L., Improve Inventory Management with Numerical Control, 6-58
Hot isostatic pressing, 7-34
Hughes, T.,
GE's Major Appliances—New Strategies in the Productivity Wars, 1-32
Plug Into Faster Bearing Installation, 7-44
Production Engineering Perspective: What Are They Doing to Motors to Help You Cut Costs?, 11-42
Solid-State Starters Stop Start-up Shutdowns, 2-52
Stop Waste Motion with Frictionless Electronic Brakes, 5-38

Tuning Up Production with Drive and Control System Improvements, 4-38

I

Imberman, W., Use Your Ears to Improve Operations—and Avoid Strikes, 2-99
Industry,
needs to improve its image, 11-8*
U.S. auto, Delphi study on, 2-8*
Inflation, how it affects productivity, 2-16*
Inventory,
how it flows through business, 2-48
management with numerical control, 6-58
WIP, control of, 2-44
Irwin, R., The Engineers' Romance with Programmable Controllers, 6-40

J

Job-related incidence of cancer, 8-20

K

Koles, K.R., A Healthy You Can Cope with Work Stress, 7-106
Kordash, J., Fasteners for Plastics, 10-54
Kraus, R.I., Press Feeder Drive Optimizes Production, 4-62

L

Lancaster, P., Improve Productivity of Stretch-Wrap Systems, 12-58
Leonard, L.
Attention: Production Engineering Students—Hurry Up and Graduate, America Can't Wait, 3-34
Control of Toxic Substances, 8-20
Dealing with Hazardous Waste, 11-66
Industry Cools Toward Precious Metals, 11-50
1981 Cars—The Empire Strikes Back, 10-30
The Big Computer Bake-off at Sara Lee, 1-38
Thick Molding Compound: A New Dimension in Reinforced Plastics, 5-62

M

Machine tools,
1980 Machine Tool Show, 8-50
prognosis of U.S. machine tool industry, 8-66
Maching methods,
chemical milling, 2-26
electrical discharge machining, 2-26
electrochemical machining, 2-28
hydrodynamic machining, 2-29
laser machining, 2-27
ultrasonic machining, 2-29
Mackenzie, J., The Quest for More Productive Machines—Cutting Tools, 9-74
Mac Munn, G.D., The Bugbear of Controlling Large Handling Systems Has Been Tamed, 6-52
Maintenance,
at John Deere's Engine Works, 10-46
planning index, 10-48
Manufacturing,
advanced technology for, at Pratt & Whitney Aircraft, 7-30
controlling warranty costs of, 7-38
customized logic circuits in shorter production cycles, 4-10*
flexible transfer lines for, 3-10*
Japan's success formula for, 9-8*
process for multichip modules, 6-30*
Material handling,
air pallet systems, 4-78
batteries boost handling uptime, 12-50
computer simulation of handling systems, 12-42
control of trolley conveyor surges, 12-66
motion-control devices for, 4-46
stretch-wrap system improvements, 12-58
systems controlled by PCs, 6-52
McConnell, C.R., Talk Your Way into Print, 5-121
McRainey, J.H.,
Kodak—A Century of Commitment to Imaging, 1-56
Production Engineering Perspective: Conveyors, 3-42
Selecting a Supplier for a Handling System, 12-34
Measurement,
diffraction effects, 3-61
linear diode arrays, 3-59
noncontact devices for, 7-75
optical methods for, 3-58
using scanning laser beams, 3-59
Metalworking,
CNC chipcutting, 9-42
training skilled help for jobs in, 9-10*
Microprocessors, for distributed manufacturing control, 11-58
Motors,
effects of rewinding on, 11-46
high-efficiency models, 11-42
payback analysis of, 11-44
soft-starting devices for ac types, 2-52

N

Noise reduction, magnetic matting for, 11-26

O

Otterson, Jr., G.L., Weight the Averages to Lighten Downtime, 10-46

P

Photoelectrics, teamed with fiber optics, 5-54
Plastics,
EMI shielding, for, 10-76
fasteners for, 10-54
fiberglass reinforced composite leaf spring, 10-41
reinforced, thick molding compound, 5-62
sheet molding compound, 5-64
uses in 1981 autos, 10-41
Plating,
gold-conserving processes, 1-8*, 11-50
low-concentration acid gold baths, 11-51
selective processes, 11-51
Poshadel, E.J., Smart, C Drives Control More Than RPM, 4-64
Production,
leak testing, 8-48
machines being developed in Britain, 11-24
planning, using phantom assemblies, 5-46
systems, Swedish theories for improving, 4-8*
testing, speeded by use of digital scopes, 7-56
Production engineering,
at Chevrolet/Citation, 1-50
at Eastman Kodak/R&D, 1-56
at Gates Learjet/business jets, 1-44
at General Electric/major appliances, 1-32
at Pratt & Whitney Aircraft/turbofan engines, 7-30
at Sara Lee/frozen baked goods, 1-38
research in Great Britain, 11-24
Production engineers,
education of undergraduates, 3-34
response to salary survey, 4-80
Productivity,
a perspective, 9-39
boosted by special steelbar shapes, 4-22*
inflation's effect on, 2-16*
Programmable controllers,
benefits of a PC program loader, 6-48
compatible components for, 4-54
for large material handling systems, 6-52
how they save engineering time, 6-44
use at Firestone Tire and Rubber, 6-40
use in boxmaking equipment, manufacture of, 4-57
use in machine fabrication, 6-44

R

Rapson, W.J., Leak Testing Is Getting Smarter, 8-46
Riney, L.A., A Successful Engineer Can Cope with a Mountain of Paper Work, 7-15
Roote, M.S., PCs Need Compatible Components, 4-54

S

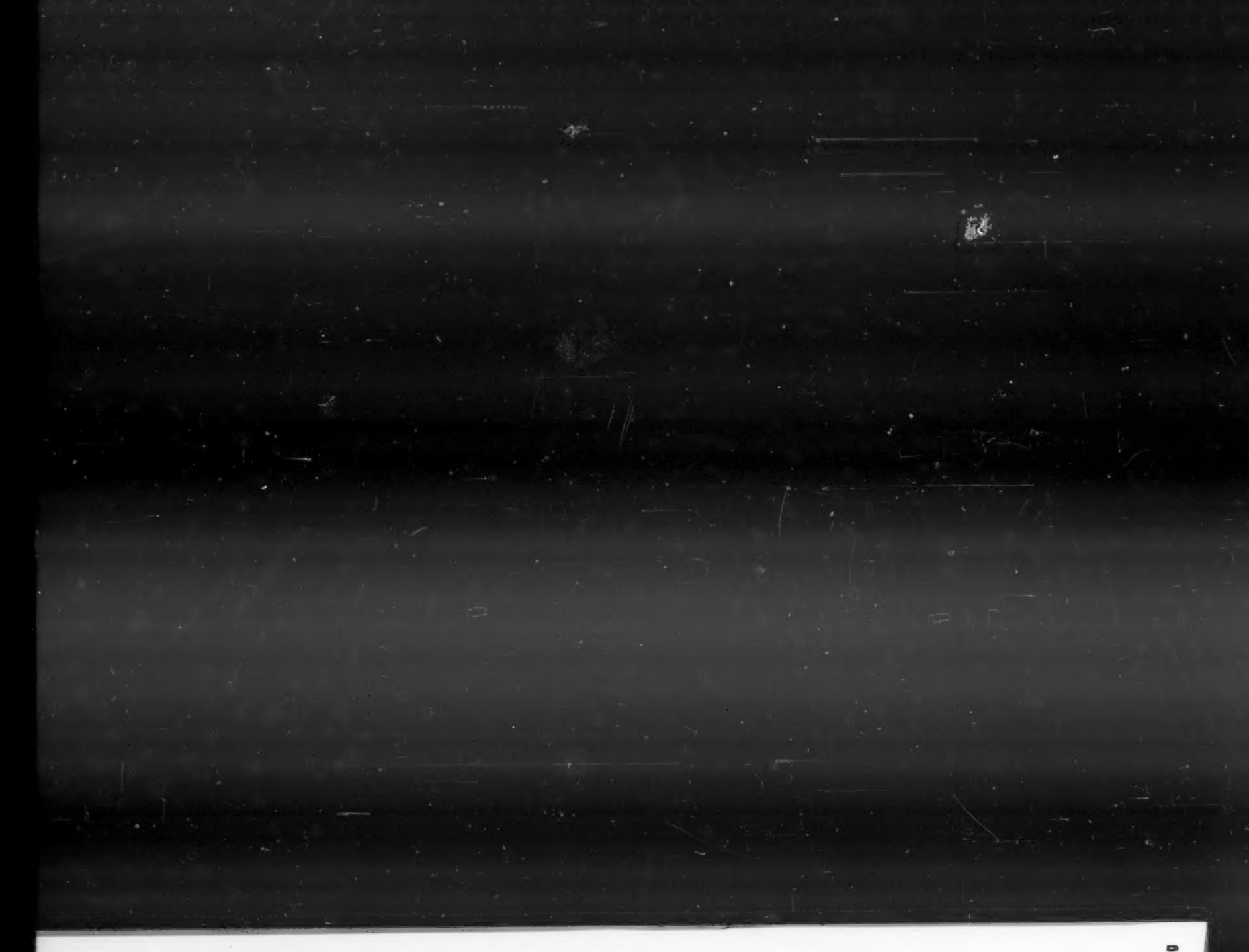
Salaries, 1980 adjustments for production engineers, 4-137
Scott, M., A Data Base for Small Computers?, 3-50
Shafts, flexible, 6-66
Stress, coping with work-related, 7-106
Surface treatments, simplify cleaning, 7-66

T

Taxes,
Percentage Repair Allowance Rule, 6-9
write-offs for mandated changes, 6-6
Technology trends,
in adhesives, 6-89
in computers, 7-72
in EMI shielding, 10-76
in lasers, 11-86
in machine diagnostics, 10-74
in measuring, noncontact, 7-75
in robots, 12-75
in surface treatments, 7-66
in web and wire processing, 11-83
Testing,
diagnostic tools for, 10-74
high-speed production, using digital scopes, 7-54
leak, 8-46
Thompson, L.,
Getting the Most From a PC Program Loader, 6-48
PCs Reshape Boxmaking, 4-57
Tin, and tin alloys, replace gold in connectors, 11-55
Toxic substances,
related to occupational cancer, 8-31
Toxic Substances Control Act, TSCA, 8-31
TSCA's effect on production engineering, 8-26
TSCA's effect on the chemical industry, 8-25

W

Warranty costs, 7-38
Weighing systems, load cells, proper installation of, 3-66
Welding,
automatic MIG welding, 9-91
electron beam, 7-35
inertial bonding, 7-34
technology update, 9-69
value of a welding positioner, 9-68
Wolfson, J.W., A Healthy You Can Cope with Work Stress, 7-106
Work-in-process, control of, 2-44

Z

Zambetti, F., Flexible Shafting: Driveline of a Different Bent, 6-66